

ABSTRACT OF THE DISCLOSURE

An object of the present invention is to allow the three primary colors of light (red, green, blue) to be emitted, and particularly to allow blue light to be emitted clearly and in a stable manner at a low voltage. An amorphous SiO_x film 2 consisting of a mixture of silicon atoms and oxygen atoms is formed on a semiconductor substrate 1. The result is heat treated in an inert gas to form the silicon atoms into nanosilicon 4a of about 3.0 nm or less. The result is subjected to hydrofluoric acid aqueous solution treatment 5 and thermal oxidation treatment 6. Any of the three primary colors of light, particularly blue, can be emitted at a low operating voltage 7 at room temperature.